Drinking Water Surveillance Program

METRO TORONTO R.C. HARRIS WATER TREATMENT PLANT

Annual Report 1989

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METRO TORONTO (R.C. HARRIS)
WATER TREATMENT PLANT

DRINKING WATER SURVEILLANCE PROGRAM

ANNUAL REPORT 1989

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EXECUTIVE SUMMARY

DRINKING WATER SURVEILLANCE PROGRAM

METRO TORONTO (R. C. HARRIS) WATER TREATMENT PLANT 1989 ANNUAL REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, there were 65 plants being monitored.

The Metro Toronto (R. C. Harris) Water Treatment Plant is a conventional treatment plant that treats water from Lake Ontario. The process consists of coagulation, flocculation, sedimentation, filtration, disinfection and fluoridation. This plant has a design capacity of 1000 x 1000m^3/day and in conjunction with the R.L. Clark and Easterly plants, serves a population of approximately 2,333,000 people.

Samples from the raw and treated water were taken on a monthly basis. One distribution system site was sampled in January. Parameters were divided into the following groups: Bacteriological, Inorganic and Physical (Laboratory Chemistry, Field Chemistry and Metals) and Organic (Chloroaromatics, Chlorophenols, Pesticides and PCB, Phenolics, Polynuclear Aromatic Hydrocarbons, Specific Pesticides and Volatiles). Specific Pesticides and Chlorophenols were analyzed in June and November only.

A summary of results is shown in Table A.

Inorganic and Physical parameters were below any applicable health related ODWOs.

Of a total of approximately 110 Organic parameters tested for on a monthly basis, none exceeded health related guidelines.

During 1989 the DWSP sampling results indicated that the R. C. Harris Water Treatment Plant produced good quality water at the plant and this quality was maintained in the distribution system.

TABLE A

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP)

SUMMARY TABLE BY SCAN

	SCAN	RAW TESTS	RAW POSITIVE	RAW %POSITIVE	TREATED TESTS	TREATED POSITIVE	TREATED %POSITIVE	SITE 2 TESTS	SITE 2 POSITIVE	SITE 2 %POSITIVE
	BACTERIOLOGICAL	36	29	80	36	3	8	3	0	0
	CHEMISTRY (FLD)	36	36	100	71	71	100	10	10	100
	CHEMISTRY (LAB)	252	201	79	252	191	75	36	33	91
	METALS	288	161	55	288	158	54	47	28	59
	CHLOROAROMATICS	154	0	0	168	0	0	14	0	0
	CHLOROPHENOLS	12	0	0	12	0	0	.	.	.
	PAH	190	0	0	190	0	0	.	.	.
	PESTICIDES & PCB	387	0	0	408	0	0	34	0	0
	PHENOLICS	12	8	66	12	7	58	.	.	.
	SPECIFIC PESTICIDES	64	0	0	65	0	0	1	0	0
	VOLATILES	348	0	0	348	48	13	29	4	13
TOTAL		1779	435		1850	478		174	75	

NO KNOWN HEALTH RELATED GUIDELINES WERE EXCEEDED.

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A '.' INDICATES THAT NO SAMPLE WAS TAKEN

DRINKING WATER SURVEILLANCE PROGRAM

METRO TORONTO (R. C. HARRIS) WATER TREATMENT PLANT
1989 ANNUAL REPORT

INTRODUCTION

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, there were 65 plants being monitored.

The DWSP was initiated at the R.C. Harris Water Treatment Plant in January of 1986. Annual reports were published for 1986 (ISBN 0-7729-2555-0), 1987 and 1988 (ISSN 0839-8941).

This report contains information and results for 1989.

In order to accommodate the increasing number of plants on the DWSP and to facilitate the timely completion of the 1989 annual reports, plants with two or more years of published data will receive an abbreviated annual report. This report maintains the same general format as in previous years but does not include a comprehensive discussion of results. For more detail on the parameters analyzed and discussion of results, consult the 1987 and 1988 reports.

PLANT DESCRIPTION

The Metro Toronto (R.C. Harris) Water Treatment Plant is a conventional treatment plant which treats water from Lake Ontario. The process consists of coagulation, flocculation, sedimentation, filtration, disinfection and fluoridation. Superchlorination is used for disinfection and for taste and odour control. Sulphur dioxide is used as a dechlorinator and ammoniation is used to produce a long-lasting chloramine residual in the distribution system. This plant has a rated capacity of 1000 x 1000m^3/day and daily flows on sampling days ranged from 452 x 1000m^3/day to 835 x 1000m^3/day. R.C. Harris in conjunction with the R.L. Clark and Easterly plants, (and the Toronto Island plant in the summer) serves a population of approximately 2,333.000 people.

The plant location is shown in Figure 1. Plant process details, in a block schematic, are shown in Figure 2. General plant information is presented in Table 2.

SAMPLING AND ANALYSIS

Plant operating personnel perform analyses on parameters for process control (Table 1).

The R. C. Harris Water Treatment Plant was sampled for approximately 180 parameters on a monthly basis. One site from the

FIGURE 1

DRINKING WATER SURVEILLANCE PROGRAM

SITE LOCATION MAP

R.C. HARRIS WATER TREATMENT PLANT

Figure 2

METRO TORONTO (R.C. HARRIS) WATER TREATMENT PLANT

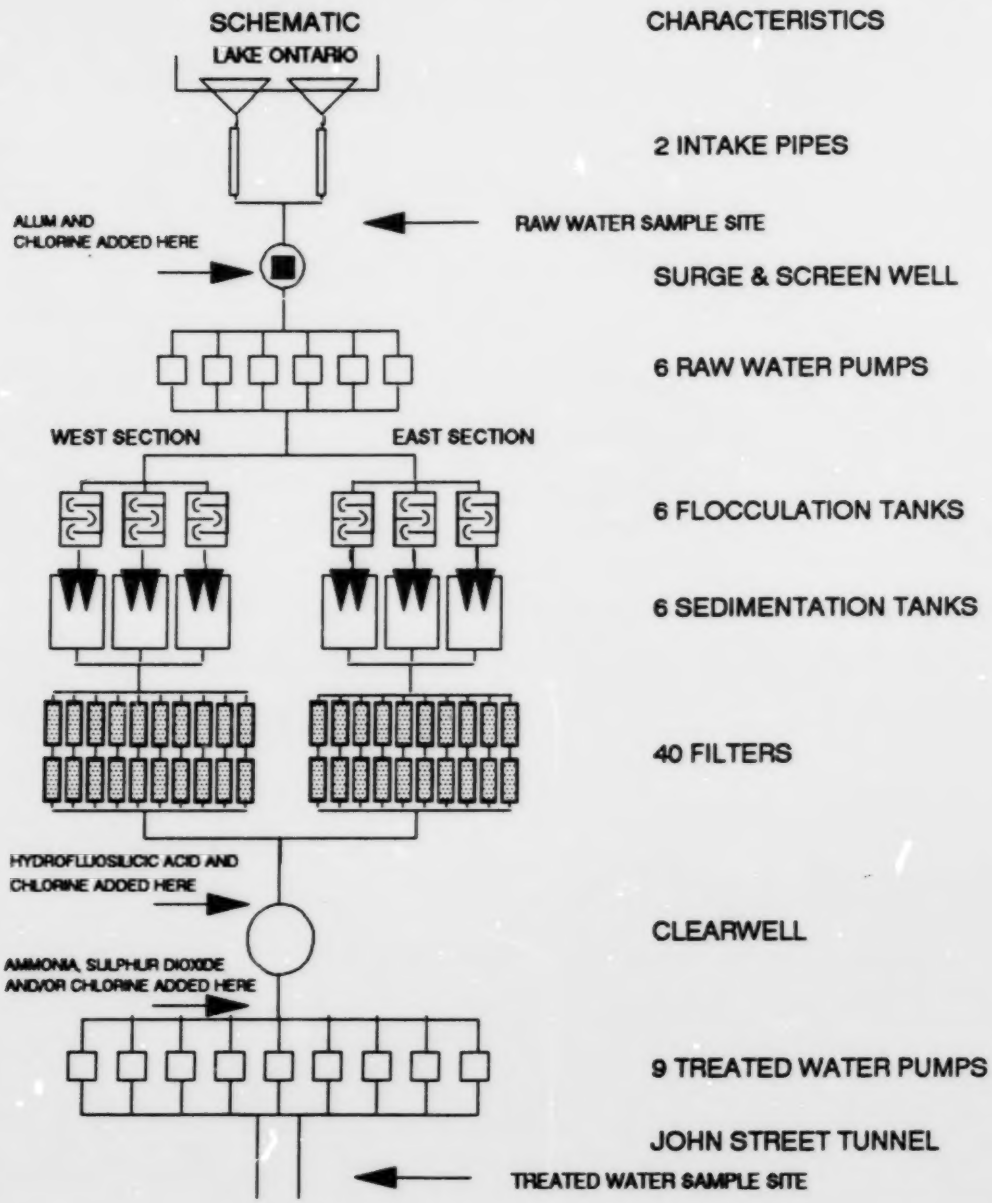

TABLE 1

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

IN-PLANT MONITORING METRO TORONTO (R.C. HARRIS) WTP 1989

PARAMETER	LOCATION	FREQUENCY
Aluminum	Treated water	daily
Ammonia	Raw water	every 2hrs
	Settled water	every 2hrs
	After clearwell	every 8hrs
	Treated water	every 8hrs
Chlorine residual - free	After post chlorination	continuous
	After filters	continuous
	Before dechlorination	continuous
	After dechlorination	continuous
total	Treated water	continuous
Fluoride	Treated water	every 4hrs
pH	After post chlorination	daily
Taste and Odour	Filtered water	hourly
	Treated water	hourly
Temperature	Raw water	continuous
Turbidity		continuous

TABLE 2

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

GENERAL INFORMATION

METRO TORONTO (R.C. HARRIS) WATER TREATMENT PLANT

LOCATION:	2701 QUEEN STREET EAST TORONTO, ONTARIO M4E 1J1 (416-392-2932)
SOURCE:	RAW WATER SOURCE - LAKE ONTARIO
RATED CAPACITY:	1000 (1000 M3/DAY)
OPERATION:	MUNICIPAL
PLANT SUPERINTENDENT:	D. MOORE
MINISTRY REGION:	CENTRAL
DISTRICT OFFICER	D. HOGG

MUNICIPALITY SERVED	POPULATION
CITY OF TORONTO	615,000
CITY OF ETOBICOKE	298,490
CITY OF NORTH YORK	556,308
CITY OF SCARBOROUGH	461,957
CITY OF YORK	133,856
BOROUGH OF EAST YORK	97,679
REGION OF YORK (SOUTH)	170,000

distribution system was sampled in January. The Specific Pesticides and Chlorophenols scans were sampled for in June and November and only in the raw and treated water. Polynuclear Aromatic

Hydrocarbons and Phenolics are only analyzed for in the raw and treated water at the plant. As of August the triazine pesticides were only analyzed in the raw and treated water. Laboratory analysis was conducted at the Ministry of the Environment facilities in Rexdale, Ontario.

RESULTS

Field Chemistry measurements were recorded on the day of sampling and were entered onto the DWSP data base as submitted by plant personnel.

Table 3 contains information on the sample day retention time, flow rate and treatment chemicals used and their associated dosages.

Table 4 is a summary break-down of the number of water samples analyzed for by parameter and by water type. The number of times that a positive or trace result was detected is also reported.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment

(MOE) laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 presents the results for parameters detected on at least one occasion.

Table 6 lists all parameters analyzed in the DWSP.

Associated guidelines and detection limits are also supplied on both tables. Parameters are listed alphabetically within each scan.

DISCUSSION

General

Water quality is judged by comparison with the Ontario Drinking Water Objectives (ODWOs) as defined in the 1984 publication (ISBN 0-7743-8985-0). The Province of Ontario has health related and aesthetic objectives for 49 parameters, which are currently under review. When an ODWO is not available guidelines/limits from other agencies are consulted. The Parameter Listing System (PALIS) recently published (ISBN 0-7729-4461-X) by the MOE catalogues and keeps current over 1750 guidelines for 650 parameters from agencies throughout the world.

Many of the compounds detected are naturally occurring or are treatment by-products.

IN THIS REPORT, DISCUSSION IS LIMITED TO THE TREATED AND DISTRIBUTED WATER AND ADDRESSES ONLY THOSE PARAMETERS WITH CONCENTRATIONS ABOVE GUIDELINE VALUES AND ORGANICS WITH DETECTED POSITIVE RESULTS.

Results for treated and distributed water indicate that no applicable health related guidelines were exceeded.

Inorganic and Physical Parameters

Ammonium

The Total Ammonium levels are high, not as a result of naturally occurring ammonia (eg. from sewage pollution) but from the anhydrous ammonia added in the treatment process. The ammonia is added after post-chlorination to provide a long lasting combined chlorine (chloramine) residual in the distribution system. Substantial free chlorine residuals were present in the treated water in September, October and November. While the European Economic Community has an aesthetic guideline of .05 mg/L, the Maximum Admissible Concentration is .50 mg/L and is set as a result of the concern for potential sewage pollution and its detection.

Aluminum

The plant operational guideline of 100 µg/L as Al in the water leaving the plant was exceeded seven times in the treated water.

Organic Parameters

Trihalomethanes

Trihalomethanes (THMs) are acknowledged to be produced during the water treatment process and will always occur in chlorinated waters. THMs are comprised of Chloroform, Chlorodibromomethane and Dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs. All Total THM occurrences, ranging from 15.6 to 29.5 µg/L, were well below the ODWO of 350 µg/L.

CONCLUSIONS

The Metro Toronto (R. C. Harris) Water Treatment Plant for the sample year of 1989 produced good quality water at the plant as assessed by the results for parameters analyzed in DWSP and this quality was maintained in the distribution system.

Raw and treated water quality from 1986 to 1989 has remained consistent. No health related guidelines, for organic or inorganic parameters, were exceeded.

TABLE 3

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) SAMPLE DAY CONDITIO 1989

	SAMPLE DAY CONDITIONS		TREATMENT CHEMICAL DOSAGES (MG/L)						
			COAGULATION	PRE-CHLORINATION	FLUORIDATION	POST-CHLORINATION	DECHLORINATION	CHLORAMINATION	
			ALUM LIQUID	CHLORINE	HYDROFLUORILICIC ACID	CHLORINE	SULPHUR DIOXIDE	AMMONIUM ANHYDROUS	AMMONIUM HYDROXIDE
DATE	DELAY* TIME(HRS)	FLOW (1000M3)							
JAN 17	9.3	615.0	3.00	1.00	1.24	.30	.15	.18	.
FEB 20	12.6	491.7	3.00	1.00	.	.30	.20	.17	.
MAR 20	10.4	547.5	3.00	1.50	1.06	2.20	1.10	.19	.
APR 17	9.7	586.0	3.00	1.50	1.14	1.50	1.10	.19	.
MAY 15	9.8	577.3	3.00	1.00	1.08	1.30	1.00	.15	.
JUN 19	11.3	501.8	3.00	1.00	1.05	.40	.20	.16	.
JUL 17	6.8	835.0	3.00	1.00	1.05	1.50	1.00	.	.
AUG 21	11.0	516.0	3.00	1.00	1.18	1.70	1.20	.15	.
SEP 18	8.7	604.1	3.00	1.00	1.09	1.60	1.10	.16	.
OCT 16	10.9	521.1	3.00	1.00	.86	1.30	1.00	.15	.
NOV 20	.0	554.5	3.00	1.00	1.06	1.20	1.20	.	.14
DEC 18	7.9	720.0	3.00	1.00	1.10	.35	.35	.	.17

* THE DELAY TIME BETWEEN THE RAW AND TREATED WATER SAMPLING, SHOULD ESTIMATE THE RETENTION TIME.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
BACTERIOLOGICAL	FECAL COLIFORM MF	12	7	0	.	.	.	.	.	.
	STANDRD PLATE CNT MF	.	.	.	12	2	0	1	0	0
	TOTAL COLIFORM MF	12	11	0	12	0	0	1	0	0
	T COLIFORM BCKGRD MF	12	11	0	12	1	0	1	0	0
*TOTAL SCAN BACTERIOLOGICAL		36	29	0	36	3	0	3	0	0
*TOTAL GROUP BACTERIOLOGICAL		36	29	0	36	3	0	3	0	0
CHEMISTRY (FLD)	FLD CHLORINE (COMB)	.	.	.	12	12	0	2	2	0
	FLD CHLORINE FREE	.	.	.	11	11	0	.	.	.
	FLD CHLORINE (TOTAL)	.	.	.	12	12	0	2	2	0
	FLD PH	12	12	0	12	12	0	2	2	0
	FLD TEMPERATURE	12	12	0	12	12	0	2	2	0
	FLD TURBIDITY	12	12	0	12	12	0	2	2	0
*TOTAL SCAN CHEMISTRY (FLD)		36	36	0	71	71	0	10	10	0
CHEMISTRY (LAB)	ALKALINITY	12	12	0	12	12	0	2	2	0
	CALCIUM	12	12	0	12	12	0	2	2	0
	CYANIDE	12	0	0	12	0	0	1	0	0
	CHLORIDE	12	12	0	12	12	0	2	2	0
	COLOUR	12	2	10	12	0	12	2	2	0
	CONDUCTIVITY	12	12	0	12	12	0	2	2	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

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SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHEMISTRY (LAB)	FLUORIDE	12	12	0	12	12	0	2	2	0
	HARDNESS	12	12	0	12	12	0	2	2	0
	IONCAL	12	12	0	12	12	0	2	2	0
	LANGELIERS INDEX	12	12	0	12	12	0	1	1	0
	MAGNESIUM	12	12	0	12	12	0	2	2	0
	SODIUM	12	12	0	12	12	0	2	2	0
	AMMONIUM TOTAL	12	6	4	12	11	0	2	1	1
	NITRITE	12	4	8	12	0	8	2	1	1
	TOTAL NITRATES	12	12	0	12	12	0	2	2	0
	NITROGEN TOT KJELD	12	12	0	12	12	0	2	2	0
	PH	12	12	0	12	12	0	2	2	0
	PHOSPHORUS FIL REACT	12	0	4	12	0	6	.	.	.
	PHOSPHORUS TOTAL	12	9	3	12	0	11	.	.	.
	SULPHATE	12	12	0	12	12	0	2	2	0
	TURBIDITY	12	12	0	12	12	0	2	2	0
*TOTAL SCAN CHEMISTRY (LAB)		252	201	29	252	191	37	36	33	2
METALS	SILVER	12	0	4	12	0	3	2	0	2
	ALUMINUM	12	12	0	12	12	0	2	2	0
	ARSENIC	12	9	3	12	10	2	2	0	2
	BARIUM	12	12	0	12	12	0	2	2	0
	BORON	12	12	0	12	12	0	2	2	0
	BERYLLIUM	12	0	8	12	0	9	2	0	0

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SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
METALS	CADMIUM	12	0	1	12	0	3	2	0	1
	COBALT	12	0	11	12	0	12	2	0	2
	CHROMIUM	12	9	3	12	11	1	2	1	1
	COPPER	12	12	0	12	11	1	2	2	0
	IRON	12	2	8	12	0	5	2	2	0
	MERCURY	12	2	1	12	2	1	1	0	1
	MANGANESE	12	12	0	12	7	5	2	2	0
	MOLYBDENUM	12	12	0	12	12	0	2	2	0
	NICKEL	12	1	11	12	2	9	2	1	1
	LEAD	12	9	3	12	10	2	2	2	0
	ANTIMONY	12	11	1	12	12	0	2	2	0
	SELENIUM	12	0	5	12	0	11	2	0	2
	STRONTIUM	12	12	0	12	12	0	2	2	0
	TITANIUM	12	11	1	12	11	1	2	2	0
	THALLIUM	12	0	5	12	0	5	2	0	0
	URANIUM	12	11	1	12	11	1	2	2	0
	VANADIUM	12	0	12	12	0	12	2	0	2
	ZINC	12	12	0	12	11	1	2	2	0
*TOTAL SCAN METALS		288	161	78	288	158	84	47	28	14
*TOTAL GROUP INORGANIC & PHYSICAL		576	398	107	611	420	121	93	71	16
CHLOROAROMATICS	HEXACHLOROBUTADIENE	11	0	0	12	0	0	1	0	0
	123 TRICHLOROBENZENE	11	0	0	12	0	0	1	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHLOROAROMATICS	1234 T-CHLOROBENZENE	11	0	0	12	0	0	1	0	0
	1235 T-CHLOROBENZENE	11	0	0	12	0	0	1	0	0
	124 TRICHLOROBENZENE	11	0	0	12	0	0	1	0	0
	1245 T-CHLOROBENZENE	11	0	0	12	0	0	1	0	0
	135 TRICHLOROBENZENE	11	0	0	12	0	0	1	0	0
	HCB	11	0	0	12	0	0	1	0	0
	HEXACHLOROETHANE	11	0	0	12	0	0	1	0	0
	OCTACHLOROSTYRENE	11	0	0	12	0	0	1	0	0
	PENTACHLOROBENZENE	11	0	0	12	0	0	1	0	0
	236 TRICHLOROTOLUENE	11	0	0	12	0	0	1	0	0
	245 TRICHLOROTOLUENE	11	0	0	12	0	0	1	0	0
	26A TRICHLOROTOLUENE	11	0	0	12	0	0	1	0	0
*TOTAL SCAN CHLOROAROMATICS		154	0	0	168	0	0	14	0	0
CHLOROPHENOLS	234 TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.
	2345 T-CHLOROPHENOL	2	0	0	2	0	0	.	.	.
	2356 T-CHLOROPHENOL	2	0	0	2	0	0	.	.	.
	245-TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.
	246-TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.
	PENTACHLOROPHENOL	2	0	0	2	0	0	.	.	.
*TOTAL SCAN CHLOROPHENOLS		12	0	0	12	0	0	0	0	0

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SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PAH	PHENANTHRENE	12	0	0	12	0	0	.	.	.
	ANTHRACENE	12	0	0	12	0	0	.	.	.
	FLUORANTHENE	12	0	0	12	0	0	.	.	.
	PYRENE	12	0	0	12	0	0	.	.	.
	BENZO(A)ANTHRACENE	12	0	0	12	0	0	.	.	.
	CHRYSENE	12	0	0	12	0	0	.	.	.
	DIMETH. BENZ(A)ANTHR	4	0	0	4	0	0	.	.	.
	BENZO(E) PYRENE	12	0	0	12	0	0	.	.	.
	BENZO(B) FLUORANTHEN	12	0	0	12	0	0	.	.	.
	PERYLENE	12	0	0	12	0	0	.	.	.
	BENZO(K) FLUORANTHEN	12	0	0	12	0	0	.	.	.
	BENZO(A) PYRENE	6	0	0	6	0	0	.	.	.
	BENZO(G,H,I) PERYLEN	12	0	0	12	0	0	.	.	.
	DIBENZO(A,H) ANTHRAC	12	0	0	12	0	0	.	.	.
	INDENO(1,2,3-C,D) PY	12	0	0	12	0	0	.	.	.
	BENZO(B) CHRYSENE	12	0	0	12	0	0	.	.	.
	CORONENE	12	0	0	12	0	0	.	.	.
*TOTAL SCAN PAH		190	0	0	190	0	0	0	0	0
PESTICIDES & PCB	ALDRIN	11	0	0	12	0	0	1	0	0
	ALPHA BHC	11	0	9	12	0	8	1	0	0
	BETA BHC	11	0	0	12	0	0	1	0	0
	LINDANE	11	0	0	12	0	0	1	0	0

TABLE 4

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SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PESTICIDES & PCB	ALPHA CHLORDANE	11	0	0	12	0	0	1	0	0
	GAMMA CHLORDANE	11	0	0	12	0	0	1	0	0
	DIELDRIN	11	0	0	12	0	0	1	0	0
	METHOXYCHLOR	11	0	0	12	0	0	1	0	0
	ENDOSULFAN 1	11	0	0	12	0	0	1	0	0
	ENDOSULFAN II	11	0	0	12	0	0	1	0	0
	ENDRIN	11	0	0	12	0	0	1	0	0
	ENDOSULFAN SULPHATE	11	0	0	12	0	0	1	0	0
	HEPTACHLOR EPOXIDE	11	0	0	12	0	0	1	0	0
	HEPTACHLOR	11	0	0	12	0	0	1	0	0
	MIREX	11	0	0	12	0	0	1	0	0
	OXYCHLORDANE	11	0	0	12	0	0	1	0	0
	OPDDT	11	0	0	12	0	0	1	0	0
	PCB	11	0	0	12	0	0	1	0	0
	DDD	11	0	0	12	0	0	1	0	0
	PPDDE	11	0	0	12	0	0	1	0	0
	PPDDT	11	0	0	12	0	0	1	0	0
	AMETRINE	12	0	0	12	0	0	1	0	0
	ATRAZINE	12	0	1	12	0	1	1	0	0
	ATRATONE	12	0	0	12	0	0	1	0	0
	CYANAZINE (BLADEX)	12	0	0	12	0	0	1	0	0
	D-ETHYL ATRAZINE	12	0	1	12	0	0	1	0	0
	D-ETHYL SIMAZINE	12	0	0	12	0	0	1	0	0
	PROMETONE	12	0	0	12	0	0	1	0	0
	PROPAZINE	12	0	0	12	0	0	1	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW TOTAL	RAW POSITIVE	RAW TRACE	TREATED TOTAL	TREATED POSITIVE	TREATED TRACE	SITE 2 TOTAL	SITE 2 POSITIVE	SITE 2 TRACE
PESTICIDES & PCB	PROMETRYNE	12	0	0	12	0	0	1	0	0
	METRIBUZIN (SENCOR)	12	0	0	12	0	0	1	0	0
	SIMAZINE	12	0	0	12	0	0	1	0	0
	ALACHLOR (LASSO)	12	0	0	12	0	0	1	0	0
	METOLACHLOR	12	0	0	12	0	0	1	0	0
*TOTAL SCAN PESTICIDES & PCB		387	0	11	408	0	9	34	0	0
PHENOLICS	PHENOLICS	12	8	4	12	7	5	.	.	.
*TOTAL SCAN PHENOLICS		12	8	4	12	7	5	0	0	0
SPECIFIC PESTICIDES	TOXAPHENE	11	0	0	12	0	0	1	0	0
	2,4,5-T	2	0	0	2	0	0	.	.	.
	2,4-D	2	0	0	2	0	0	.	.	.
	2,4-DB	2	0	0	2	0	0	.	.	.
	2,4 D PROPIONIC ACID	2	0	0	2	0	0	.	.	.
	DICAMBA	2	0	0	2	0	0	.	.	.
	PICHLORAM	0	0	0	0	0	0	.	.	.
	SILVEX	2	0	0	2	0	0	.	.	.
	DIAZINON	2	0	0	2	0	0	.	.	.
	DICHLOROVOS	2	0	0	2	0	0	.	.	.
	CHLORPYRIFOS	2	0	0	2	0	0	.	.	.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
SPECIFIC PESTICIDES	ETHION	2	0	0	2	0	0	.	.	.
	AZINPHOS-METHYL	0	0	0	0	0	0	.	.	.
	MALATHION	2	0	0	2	0	0	.	.	.
	MEVINPHOS	2	0	0	2	0	0	.	.	.
	METHYL PARATHION	2	0	0	2	0	0	.	.	.
	METHYLTRITHION	2	0	0	2	0	0	.	.	.
	PARATHION	2	0	0	2	0	0	.	.	.
	PHORATE	2	0	0	2	0	0	.	.	.
	RELDAN	2	0	0	2	0	0	.	.	.
	RONNEL	2	0	0	2	0	0	.	.	.
	AMINOCARB	0	0	0	0	0	0	.	.	.
	BENOMYL	1	0	0	1	0	0	.	.	.
	BUX	0	0	0	0	0	0	.	.	.
	CARBOFURAN	2	0	0	2	0	0	.	.	.
	CICP	2	0	0	2	0	0	.	.	.
	DIALLATE	2	0	0	2	0	0	.	.	.
	EPTAM	2	0	0	2	0	0	.	.	.
	IPC	2	0	0	2	0	0	.	.	.
	PROPOXUR	2	0	0	2	0	0	.	.	.
	CARBARYL	2	0	0	2	0	0	.	.	.
	BUTYLATE	2	0	0	2	0	0	.	.	.
*TOTAL SCAN SPECIFIC PESTICIDES		64	0	0	65	0	0	1	0	0
VOLATILES	BENZENE	12	0	1	12	0	0	1	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
VOLATILES	TOLUENE	12	0	3	12	0	5	1	0	0
	ETHYLBENZENE	12	0	3	12	0	6	1	0	0
	P-XYLENE	12	0	0	12	0	0	1	0	0
	M-XYLENE	12	0	0	12	0	1	1	0	0
	O-XYLENE	12	0	1	12	0	0	1	0	0
	STYRENE	12	0	7	12	0	11	1	0	0
	1,1 DICHLOROETHYLENE	12	0	0	12	0	0	1	0	0
	METHYLENE CHLORIDE	12	0	0	12	0	0	1	0	0
	T1,2DICHLOROETHYLENE	12	0	0	12	0	0	1	0	0
	1,1 DICHLOROETHANE	12	0	0	12	0	0	1	0	0
	CHLOROFORM	12	0	1	12	12	0	1	1	0
	111, TRICHLOROETHANE	12	0	4	12	0	2	1	0	1
	1,2 DICHLOROETHANE	12	0	0	12	0	0	1	0	0
	CARBON TETRACHLORIDE	12	0	0	12	0	0	1	0	0
	1,2 DICHLOROPROPANE	12	0	0	12	0	0	1	0	0
	TRICHLOROETHYLENE	12	0	0	12	0	0	1	0	0
	DICHLOROBROMOMETHANE	12	0	1	12	12	0	1	1	0
	112 TRICHLOROETHANE	12	0	0	12	0	0	1	0	0
	CHLORODIBROMOMETHANE	12	0	0	12	12	0	1	1	0
	T-CHLOROETHYLENE	12	0	0	12	0	2	1	0	0
	BROMOFORM	12	0	0	12	0	12	1	0	1
	1122 T-CHLOROETHANE	12	0	0	12	0	0	1	0	0
	CHLOROBENZENE	12	0	0	12	0	0	1	0	0
	1,4 DICHLOROBENZENE	12	0	0	12	0	1	1	0	0
	1,3 DICHLOROBENZENE	12	0	0	12	0	0	1	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM RC HARRIS

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
VOLATILES	1,2 DICHLOROBENZENE	12	0	0	12	0	0	1	0	0
	ETHLYENE DIBROMIDE	12	0	0	12	0	0	1	0	0
	TOTL TRIHALOMETHANES	12	0	0	12	12	0	1	1	0
*TOTAL SCAN VOLATILES		348	0	21	348	48	40	29	4	2
*TOTAL GROUP ORGANIC		1167	8	36	1203	55	54	78	4	2
TOTAL		1779	435	143	1850	478	175	174	75	18

KEY TO TABLE 5 and 6

A ONTARIO DRINKING WATER OBJECTIVES (ODWO)
1. Maximum Acceptable Concentration (MAC)
1+. MAC for Total Trihalomethanes
1*. MAC for Bacteriological Analyses
Poor water quality is indicated when :
- total coliform counts > 0 < 5
- P/A Bottle Test is present after 48 hours
- Aeromonas organisms are detected in more than 25% of samples in a single submission or in successive submissions from the same sampling site
- Pseudomonas Aeruginosa, Staphylococcus Aureus and members of the Fecal Streptococcus group should not be detected in any sample
- Standard Plate Count should not exceed 500 organisms per ml at 35 ^{0}C within 48 hours

2. Interim Maximum Acceptable Concentration (IMAC)
3. Maximum Desirable Concentration (MDC)
4. Aesthetic or Recommended Operational Guideline
- hardness levels between 80 and 100 mg/L as calcium carbonate are considered to provide an acceptable balance between corrosion and incrustation, water supplies with a hardness >200 mg/L are considered poor and those in excess of 500 mg/L are unacceptable.

B HEALTH & WELFARE CANADA (H&W)
1. Maximum Acceptable Concentration (MAC)
2. Proposed MAC
3. Interim MAC
4. Aesthetic Objective (AO) (for xylenes, a total)

C WORLD HEALTH ORGANIZATION (WHO)
1. Guideline Value (GV)
2. Tentative GV
3. Aesthetic GV

D US ENVIRONMENTAL PROTECTION AGENCY (EPA)
1. Maximum Contaminant Level (MCL)
2. Suggested No-Adverse Effect Level (SNAEL)
3. Lifetime Health Advisory
4. EPA Ambient Water Quality Criteria
5. Maximum Contaminant Level Goal (MCLG)

F EUROPEAN ECONOMIC COMMUNITY (EEC)
1. Health Related Guideline Level
2. Aesthetic Guideline Level
3. Maximum Admissable Concentration (MADC)

G CALIFORNIA STATE DEPARTMENT OF HEALTH-GUIDELINE VALUE

H USSR MAXIMUM PERMISSIBLE CONCENTRATION

I NEW YORK STATE AMBIENT WATER GUIDELINE

N/A NONE AVAILABLE

INTERPRETATION OF DATA

The interpretation of analytical results that are obtained from measurements near the limit of detection of the measurement process is subject to greater uncertainty than those at higher concentrations. The principle areas of concern relate to whether the substance has actually been detected, whether it has been properly identified, and whether it is an artifact of the measurement process. In other words, false positives can be caused by the instrumentation or the test procedures used, when in fact these compounds are not present in the sample.

There are several methods to treat data from such measurements:
1. Exclude the low-level data because of this uncertainty factor. However, studies of long-term environmental trends and modelling may be adversely affected by exclusion of such data.
2. Qualify these data so the user is aware of the greater uncertainty associated with their use.

For the Drinking Water Surveillance Program, measurements near the limit of detection of the measurement process are reported qualified by the code "<T". Results quantified by "W" indicate a zero measurement. These results are reported for purposes of modelling and long-term trend analysis and no significance should be attributed to a single determination of a substance below "T" (a single determination may well be a false positive). Repeat analysis or additional data are needed before it can be stated with certainty that the substance in question was truly present. On the other hand, it is less likely that repeated detection of a substance at or near the limit of detection at a specific location is solely due to an artifact in the measurement system, and more likely represents a true positive. However the average of such data is still only an estimate of the amount of substance present subject to the possible biases of the method used.

LABORATORY RESULTS, REMARK DESCRIPTIONS

.	No Sample Taken
BDL	Below Minimum Measurable Amount
<T	Greater Than Detection Limit But Not Confident (SEE INTERPRETATION OF RESULTS ABOVE)
>	Results Are Greater Than The Upper Limit
<=>	Approximate Result
!AW	No Data: Analysis Withdrawn
!CR	No Data: Could Not Confirm By Reanalysis
!CS	No Data: Contamination Suspected
!IL	No Data: Sample Incorrectly Labelled
!IP	No Data: Insufficient Preservative
!IS	No Data: Insufficient Sample

!LA	No Data: Laboratory Accident
!LD	No Data: Test Queued After Sample Discarded
!NA	No Data: No Authorization To Perform Reanalysis
!NP	No Data: No Procedure
!NR	No Data: Sample Not Received
!OP	No Data: Obscured Plate
!QU	No Data: Quality Control Unacceptable
!PE	No Data: Procedural Error - Sample Discarded
!PH	No Data: Sample pH Outside Valid Range
!RE	No Data: Received Empty
!RO	No Data: See Attached Report (no numeric results)
!SM	No Data: Sample Missing
!SS	No Data: Send Separate Sample Properly Preserved
!UI	No Data: Indeterminant Interference
!TX	No Data: Time Expired
A3C	Approximate, Total Count Exceeded 300 Colonies
APL	Additional Peak, Large, Not Priority Pollutant
APS	Additional Peak, Less Than, Not Priority Pollutant
CIC	Possible Contamination, Improper Cap
CRO	Calculated Result Only
PPS	Test Performed On Preserved Sample
RMP	P and M-Xylene Not Separated
RRV	Rerun Verification
RVU	Reported Value Unusual
SPS	Several Peaks, Small, Not Priority Pollutant
UCR	Unreliable: Could Not Confirm By Reanalysis
UCS	Unreliable: Contamination Suspected
UIN	Unreliable: Indeterminant Interference
XP	Positive After X Number of Hours
T# (T06)	Result Taken After # Hours

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
BACTERIOLOGICAL					
FECAL COLIFORM MF (CT/100ML)			DET'N LIMIT = 0		GUIDELINE = 0 (A1)
JAN	0 T24	.	.	.	
FEB	1 T48	.	.	.	
MAR	21 T24	.	.	.	
APR	0 T48	.	.	.	
MAY	0	.	.	.	
JUN	0	.	.	.	
JUL	1	.	.	.	
AUG	1	.	.	.	
SEP	2	.	.	.	
OCT	2	.	.	.	
NOV	1	.	.	.	
DEC	BDL	.	.	.	
STANDRD PLATE CNT MF ( )			DET'N LIMIT =		GUIDELINE =
JAN	.	0 <=>	.	1 <=>	
FEB	.	0 <=>	.	.	
MAR	.	0 <=>	.	.	
APR	.	1 <=>	.	.	
MAY	.	0 <=>	.	.	
JUN	.	0 <=>	.	.	
JUL	.	0 <=>	.	.	
AUG	.	1 <=>	.	.	
SEP	.	0 <=>	.	.	
OCT	.	1 <=>	.	.	
NOV	.	28	.	.	
DEC	.	27	.	.	
TOTAL COLIFORM MF (CT/100ML)			DET'N LIMIT = 0		GUIDELINE = 5/100ML(A1)
JAN	27 T24	0 T24	.	0 T06	
FEB	13 A3C	0 T48	.	.	
MAR	150 >	0 T24	.	.	
APR	5 A3C	0 T48	.	.	
MAY	3 A3C	0	.	.	
JUN	1	0	.	.	
JUL	28 A3C	0	.	.	
AUG	62 A3C	0	.	.	
SEP	30 A3C	0	.	.	
OCT	200	0	.	.	
NOV	80	0	.	.	
DEC	BDL	0	.	.	
T COLIFORM BCKGRD MF (CT/100ML)			DET'N LIMIT = 0		GUIDELINE = N/A
JAN	130 T24	0 T24	.	0 T06	
FEB	430 A3C	0 T48	.	.	
MAR	2400 >	0 T24	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
APR	1000 A3C	0 T48	.	.	
MAY	2400 >	0	.	.	
JUN	72	0	.	.	
JUL	860	1	.	.	
AUG	2400 >	0	.	.	
SEP	4800 >	0	.	.	
OCT	740	0	.	.	
NOV	600	0	.	.	
DEC	BDL	0	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
CHEMISTRY (FLD)				
FLD CHLORINE (COMB) ( )			**DET'N LIMIT =**	**GUIDELINE =**
JAN	.	.750	.180	.190
FEB	.	.730	.	.
MAR	.	.720	.	.
APR	.	.630	.	.
MAY	.	.620	.	.
JUN	.	.640	.	.
JUL	.	.400	.	.
AUG	.	.610	.	.
SEP	.	.750	.	.
OCT	.	.570	.	.
NOV	.	.630	.	.
DEC	.	.670	.	.
FLD CHLORINE FREE ( )			**DET'N LIMIT =**	**GUIDELINE =**
FEB	.	.050	.	.
MAR	.	.060	.	.
APR	.	.030	.	.
MAY	.	.100	.	.
JUN	.	.040	.	.
JUL	.	.500	.	.
AUG	.	.100	.	.
SEP	.	.050	.	.
OCT	.	.070	.	.
NOV	.	.080	.	.
DEC	.	.050	.	.
FLD CHLORINE (TOTAL) ( )			**DET'N LIMIT =**	**GUIDELINE =**
JAN	.	.750	.180	.190
FEB	.	.780	.	.
MAR	.	.780	.	.
APR	.	.660	.	.
MAY	.	.720	.	.
JUN	.	.680	.	.
JUL	.	.900	.	.
AUG	.	.710	.	.
SEP	.	.800	.	.
OCT	.	.640	.	.
NOV	.	.710	.	.
DEC	.	.720	.	.
FLD PH (DIMNSLESS)			**DET'N LIMIT = N/A**	**GUIDELINE = 6.5-8.5(A4)**
JAN	8.200	7.660	7.580	7.610
FEB	8.100	7.640	.	.
MAR	8.210	7.520	.	.
APR	8.310	7.700	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
MAY	8.350	7.690	.	.	
JUN	8.190	7.650	.	.	
JUL	8.000	7.530	.	.	
AUG	8.180	7.540	.	.	
SEP	8.500	7.540	.	.	
OCT	8.200	7.760	.	.	
NOV	8.060	7.460	.	.	
DEC	8.130	7.570	.	.	
FLD TEMPERATURE (DEG.C)			DET'N LIMIT = N/A		GUIDELINE = 15 (A1)
JAN	3.500	3.500	20.000	9.500	
FEB	3.200	4.000	.	.	
MAR	1.200	1.500	.	.	
APR	7.500	3.600	.	.	
MAY	5.300	5.700	.	.	
JUN	5.000	5.500	.	.	
JUL	6.500	8.000	.	.	
AUG	11.900	12.400	.	.	
SEP	18.500	19.000	.	.	
OCT	10.000	10.000	.	.	
NOV	6.000	6.200	.	.	
DEC	3.500	3.700	.	.	
FLD TURBIDITY (FTU)			DET'N LIMIT = N/A		GUIDELINE = 1.0 (A1)
JAN	.770	.100	1.500	.820	
FEB	.530	.080	.	.	
MAR	2.250	.080	.	.	
APR	.840	.140	.	.	
MAY	.670	.180	.	.	
JUN	.470	.180	.	.	
JUL	.700	.180	.	.	
AUG	.750	.160	.	.	
SEP	2.700	.250	.	.	
OCT	.740	.140	.	.	
NOV	1.500	.100	.	.	
DEC	.560	.100	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
CHEMISTRY (LAB)					
ALKALINITY (MG/L)			DET'N LIMIT = .200		GUIDELINE = 30-500 (A4)
JAN	101.700	96.700	99.300	96.300	
FEB	100.900	97.900	.	.	
MAR	101.200	92.600	.	.	
APR	100.100	89.800	.	.	
MAY	99.900	91.400	.	.	
JUN	99.300	93.200	.	.	
JUL	102.500	93.000	.	.	
AUG	100.200	90.500	.	.	
SEP	86.000	96.500	.	.	
OCT	100.300	93.100	.	.	
NOV	102.000	92.900	.	.	
DEC	102.100	95.500	.	.	
CALCIUM (MG/L)			DET'N LIMIT = .100		GUIDELINE = 100 (F2)
JAN	40.000	40.800	41.000	40.400	
FEB	40.400	41.000	.	.	
MAR	42.200	42.600	.	.	
APR	38.800	39.400	.	.	
MAY	40.000	39.600	.	.	
JUN	39.600	39.800	.	.	
JUL	39.800	39.600	.	.	
AUG	39.600	39.600	.	.	
SEP	37.200	38.400	.	.	
OCT	40.600	40.000	.	.	
NOV	40.400	40.400	.	.	
DEC	38.800	39.600	.	.	
CHLORIDE (MG/L)			DET'N LIMIT = .200		GUIDELINE = 250 (A3)
JAN	24.300	25.500	25.600	25.300	
FEB	23.300	24.500	.	.	
MAR	25.200	27.900	.	.	
APR	24.300	27.300	.	.	
MAY	23.000	25.500	.	.	
JUN	22.300	23.600	.	.	
JUL	22.800	25.600	.	.	
AUG	22.200	25.000	.	.	
SEP	21.900	24.500	.	.	
OCT	22.400	24.500	.	.	
NOV	22.600	25.000	.	.	
DEC	22.400	23.900	.	.	
COLOUR (HZU)			DET'N LIMIT = .5		GUIDELINE = 5.0 (A3)
JAN	1.500 <T	.500 <T	4.500	4.000	
FEB	2.000 <T	1.000 <T	.	.	
MAR	2.500	1.500 <T	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
APR	2.500	.500 <T	.	.	
MAY	2.000 <T	1.000 <T	.	.	
JUN	1.500 <T	.500 <T	.	.	
JUL	2.000 <T	.500 <T	.	.	
AUG	2.000 <T	1.000 <T	.	.	
SEP	1.500 <T	.500 <T	.	.	
OCT	2.000 <T	1.000 <T	.	.	
NOV	1.500 <T	1.000 <T	.	.	
DEC	2.000 <T	1.000 <T	.	.	
CONDUCTIVITY (UMHO/CM)		DET'N LIMIT = 1			GUIDELINE = 400 (F2)
JAN	330	334	337	334	
FEB	326	328	.	.	
MAR	341	349	.	.	
APR	336	341	.	.	
MAY	324	328	.	.	
JUN	322	326	.	.	
JUL	324	328	.	.	
AUG	314	319	.	.	
SEP	318	312	.	.	
OCT	326	330	.	.	
NOV	327	333	.	.	
DEC	329	331	.	.	
FLUORIDE (MG/L)		DET'N LIMIT = .01			GUIDELINE = 2.400 (A1)
JAN	.120	1.120	1.140	1.060	
FEB	.140	.140	.	.	
MAR	.140	1.240	.	.	
APR	.120	1.300	.	.	
MAY	.160	1.260	.	.	
JUN	.100	1.160	.	.	
JUL	.140	1.200	.	.	
AUG	.120	1.280	.	.	
SEP	.120	1.160	.	.	
OCT	.120	.920	.	.	
NOV	.140	1.240	.	.	
DEC	.140	1.260	.	.	
HARDNESS (MG/L)		DET'N LIMIT = .500			GUIDELINE = 80-100 (A4)
JAN	135.000	137.000	138.000	135.000	
FEB	136.000	137.000	.	.	
MAR	141.000	143.000	.	.	
APR	134.000	136.000	.	.	
MAY	134.000	133.000	.	.	
JUN	134.000	134.000	.	.	
JUL	134.000	134.000	.	.	
AUG	134.000	134.000	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
SEP	126.000	130.000	.	.	
OCT	136.000	135.000	.	.	
NOV	137.000	136.000	.	.	
DEC	131.000	133.000	.	.	
IONCAL (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	.717	2.304	.346	.919	
FEB	.542	.684	.	.	
MAR	2.120	5.296	.	.	
APR	.240	2.592	.	.	
MAY	.671	.138	.	.	
JUN	.328	1.438	.	.	
JUL	2.009	.622	.	.	
AUG	.308	.986	.	.	
SEP	5.387	4.122	.	.	
OCT	1.526	1.669	.	.	
NOV	2.231	1.459	.	.	
DEC	5.386	2.823	.	.	
LANGELIERS INDEX (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	.395	.021	-.115	.145	
FEB	.396	.240	.	.	
MAR	.505	.430	.	.	
APR	.344	.113	.	.	
MAY	.528	.475	.	.	
JUN	.261	.175	.	.	
JUL	.457	.382	.	.	
AUG	.456	.361	.	.	
SEP	.202	.436	.	.	
OCT	.526	.287	.	.	
NOV	.441	.200	.	.	
DEC	.424	.463	.	.	
MAGNESIUM (MG/L)			DET'N LIMIT = .050		GUIDELINE = 30 (F2)
JAN	8.500	8.600	8.500	8.400	
FEB	8.500	8.300	.	.	
MAR	8.600	8.800	.	.	
APR	9.100	9.100	.	.	
MAY	8.400	8.300	.	.	
JUN	8.500	8.400	.	.	
JUL	8.400	8.400	.	.	
AUG	8.600	8.600	.	.	
SEP	8.100	8.200	.	.	
OCT	8.500	8.500	.	.	
NOV	8.600	8.500	.	.	
DEC	8.250	8.300	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
SODIUM (MG/L)			DET'N LIMIT = .200		GUIDELINE = 200 (C3)
JAN	13.200	13.400	13.200	13.000	
FEB	12.000	11.600	.	.	
MAR	13.000	13.600	.	.	
APR	13.200	13.000	.	.	
MAY	12.000	12.200	.	.	
JUN	11.600	11.800	.	.	
JUL	11.600	11.800	.	.	
AUG	11.400	11.200	.	.	
SEP	12.000	12.000	.	.	
OCT	12.200	12.200	.	.	
NOV	11.800	11.800	.	.	
DEC	11.100	10.900	.	.	
AMMONIUM TOTAL (MG/L)			DET'N LIMIT = 0.002		GUIDELINE = .05 (F2)
JAN	.004 <T	.146	.004 <T	.116	
FEB	.022	.146	.	.	
MAR	.080	.128	.	.	
APR	.090	.130	.	.	
MAY	.002 <T	.126	.	.	
JUN	.008 <T	.090	.	.	
JUL	.030	BDL	.	.	
AUG	.036	.112	.	.	
SEP	.016	.130	.	.	
OCT	.008 <T	.118	.	.	
NOV	BDL	.092	.	.	
DEC	BDL	.094	.	.	
NITRITE (MG/L)			DET'N LIMIT = 0.001		GUIDELINE = 1.000 (A1)
JAN	.002 <T	BDL	.001 <T	.011	
FEB	.002 <T	.002 <T	.	.	
MAR	.022	.003 <T	.	.	
APR	.004 <T	.001 <T	.	.	
MAY	.003 <T	.001 <T	.	.	
JUN	.006	.004 <T	.	.	
JUL	.007	BDL	.	.	
AUG	.008	.001 <T	.	.	
SEP	.004 <T	BDL	.	.	
OCT	.002 <T	BDL	.	.	
NOV	.001 <T	.001 <T	.	.	
DEC	.001 <T	.001 <T	.	.	
TOTAL NITRATES (MG/L)			DET'N LIMIT = .020		GUIDELINE = 10.000 (A1)
JAN	.400	.400	.575	.420	
FEB	.395	.400	.	.	
MAR	.415	.415	.	.	
APR	.350	.350	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
MAY	.320	.325	.	.	
JUN	.245	.250	.	.	
JUL	.365	.360	.	.	
AUG	.190	.195	.	.	
SEP	.150	.150	.	.	
OCT	.305	.295	.	.	
NOV	.375	.385	.	.	
DEC	.375	.390	.	.	
NITROGEN TOT KJELD (MG/L)			DET'N LIMIT = .020		GUIDELINE = N/A
JAN	.220	.300	.270	.300	
FEB	.200	.280	.	.	
MAR	.390	.330	.	.	
APR	.380	.300	.	.	
MAY	.240	.290	.	.	
JUN	.250	.240	.	.	
JUL	.300	.170	.	.	
AUG	.290	.300	.	.	
SEP	.260	.330	.	.	
OCT	.240	.290	.	.	
NOV	.220	.250	.	.	
DEC	.200	.310	.	.	
PH (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)
JAN	8.230	7.870	7.720	8.000	
FEB	8.230	8.080	.	.	
MAR	8.320	8.280	.	.	
APR	8.200	8.010	.	.	
MAY	8.370	8.360	.	.	
JUN	8.110	8.050	.	.	
JUL	8.290	8.260	.	.	
AUG	8.300	8.250	.	.	
SEP	8.140	8.310	.	.	
OCT	8.360	8.160	.	.	
NOV	8.270	8.070	.	.	
DEC	8.270	8.330	.	.	
PHOSPHORUS FIL REACT (MG/L)			DET'N LIMIT = .0005		GUIDELINE = N/A
JAN	.001 <T	.001 <T	.	.	
FEB	BDL	.000 <T	.	.	
MAR	.002 <T	.001 <T	.	.	
APR	BDL	BDL	.	.	
MAY	.000 <T	.001 <T	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	BDL	BDL	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
OCT	BDL	BDL	.	.	
NOV	.000 <T	.000 <T	.	.	
DEC	BDL	.001 <T	.	.	
PHOSPHORUS TOTAL (MG/L)		DET'N LIMIT = .002			GUIDELINE = .40 (F2)
JAN	.010	.004 <T	.	.	
FEB	.007 <T	BDL	.	.	
MAR	.017	.005 <T	.	.	
APR	.009 <T	.005 <T	.	.	
MAY	.010	.006 <T	.	.	
JUN	.016	.008 <T	.	.	
JUL	.013	.006 <T	.	.	
AUG	.012	.006 <T	.	.	
SEP	.012	.009 <T	.	.	
OCT	.010	.007 <T	.	.	
NOV	.015	.004 <T	.	.	
DEC	.009 <T	.004 <T	.	.	
SULPHATE (MG/L)		DET'N LIMIT = .200			GUIDELINE = 500. (A3)
JAN	26.200	27.900	28.020	27.960	
FEB	26.570	28.290	.	.	
MAR	26.400	29.210	.	.	
APR	26.200	29.590	.	.	
MAY	26.930	29.930	.	.	
JUN	26.850	29.040	.	.	
JUL	25.390	28.450	.	.	
AUG	26.320	29.710	.	.	
SEP	26.030	29.720	.	.	
OCT	26.300	29.180	.	.	
NOV	29.050	33.250	.	.	
DEC	27.090	29.590	.	.	
TURBIDITY (FTU)		DET'N LIMIT = .02			GUIDELINE = 1.00 (A1)
JAN	1.990	.530	1.800	.980	
FEB	.570	.430	.	.	
MAR	4.400	.360	.	.	
APR	1.800	.300	.	.	
MAY	1.430	.780	.	.	
JUN	.830	.370	.	.	
JUL	1.150	.900	.	.	
AUG	1.380	.360	.	.	
SEP	1.950	.500	.	.	
OCT	1.450	.300	.	.	
NOV	3.600	.270	.	.	
DEC	.830	.270	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
METALS					
SILVER (UG/L)			DET'N LIMIT = .020		GUIDELINE = 50. (A1)
JAN	.080 <T	.050 <T	.070 <T	.030 <T	
FEB	BDL	BDL	.	.	
MAR	.050 <T	BDL	.	.	
APR	.040 <T	.100 <T	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	.030 <T	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	.040 <T	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
ALUMINUM (UG/L)			DET'N LIMIT = .050		GUIDELINE = 100.(A4)
JAN	15.080	92.800	54.520	90.480	
FEB	11.600	95.120	.	.	
MAR	81.200	84.680	.	.	
APR	13.920	127.600	.	.	
MAY	6.728	197.200	.	.	
JUN	9.700	110.000	.	.	
JUL	7.180	162.860	.	.	
AUG	7.500	210.000	.	.	
SEP	73.000	300.000	.	.	
OCT	17.000	160.000	.	.	
NOV	37.000	94.000	.	.	
DEC	11.000	93.000	.	.	
ARSENIC (UG/L)			DET'N LIMIT = 0.050		GUIDELINE = 50.0 (A1)
JAN	.680 <T	.860 <T	.520 <T	.530 <T	
FEB	1.900	1.600	.	.	
MAR	2.000	1.800	.	.	
APR	1.400	1.400	.	.	
MAY	1.700	1.500	.	.	
JUN	1.500	1.500	.	.	
JUL	1.190	1.160	.	.	
AUG	1.400	1.600	.	.	
SEP	.910 <T	1.300	.	.	
OCT	1.100	.950 <T	.	.	
NOV	1.000 <T	1.100	.	.	
DEC	1.100	1.300	.	.	
BARIUM (UG/L)			DET'N LIMIT = 0.020		GUIDELINE = 1000. (A1)
JAN	24.000	24.000	29.000	24.000	
FEB	22.900	23.000	.	.	
MAR	24.000	24.000	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
APR	24.000	23.000	.	.
MAY	22.000	22.000	.	.
JUN	24.000	23.000	.	.
JUL	25.120	25.010	.	.
AUG	24.000	23.000	.	.
SEP	22.000	23.000	.	.
OCT	22.000	21.000	.	.
NOV	23.000	23.000	.	.
DEC	23.000	24.000	.	.
BORON (UG/L)			DET'N LIMIT = 0.200	GUIDELINE = 5000. (A1)
JAN	48.000	49.000	30.000	35.000
FEB	34.000	60.000	.	.
MAR	87.000	100.000	.	.
APR	220.000	190.000	.	.
MAY	39.000	38.000	.	.
JUN	54.000	52.000	.	.
JUL	56.840	55.770	.	.
AUG	52.000	48.000	.	.
SEP	26.000	42.000	.	.
OCT	34.000	27.000	.	.
NOV	26.000	33.000	.	.
DEC	35.000	39.000	.	.
BERYLLIUM (UG/L)			DET'N LIMIT = 0.010	GUIDELINE = N/A
JAN	BDL	.090 <T	BDL	BDL
FEB	BDL	BDL	.	.
MAR	.110 <T	.160 <T	.	.
APR	.200 <T	.190 <T	.	.
MAY	.040 <T	.080 <T	.	.
JUN	.160 <T	.150 <T	.	.
JUL	.170 <T	.120 <T	.	.
AUG	.080 <T	.170 <T	.	.
SEP	.020 <T	.070 <T	.	.
OCT	.030 <T	BDL	.	.
NOV	BDL	.050 <T	.	.
DEC	BDL	BDL	.	.
CADMIUM (UG/L)			DET'N LIMIT = 0.050	GUIDELINE = 5.000 (A1)
JAN	BDL	BDL	.210 <T	BDL
FEB	.070 <T	.110 <T	.	.
MAR	BDL	BDL	.	.
APR	BDL	BDL	.	.
MAY	BDL	BDL	.	.
JUN	BDL	.080 <T	.	.
JUL	BDL	BDL	.	.
AUG	BDL	.130 <T	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
SEP	BDL	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
COBALT (UG/L)			DET'N LIMIT = 0.020		GUIDELINE = N/A
JAN	.120 <T	.100 <T	.140 <T	.100 <T	
FEB	.250 <T	.250 <T	.	.	
MAR	.050 <T	.040 <T	.	.	
APR	.100 <T	.080 <T	.	.	
MAY	.170 <T	.250 <T	.	.	
JUN	BDL	.150 <T	.	.	
JUL	.330 <T	.410 <T	.	.	
AUG	.110 <T	.140 <T	.	.	
SEP	.250 <T	.110 <T	.	.	
OCT	.100 <T	.130 <T	.	.	
NOV	.180 <T	.070 <T	.	.	
DEC	.090 <T	.090 <T	.	.	
CHROMIUM (UG/L)			DET'N LIMIT = 0.100		GUIDELINE = 50. (A1)
JAN	5.300	5.900	.630 <T	2.200	
FEB	1.300	4.400	.	.	
MAR	6.300	7.600	.	.	
APR	7.600	6.900	.	.	
MAY	7.600	7.100	.	.	
JUN	6.300	7.900	.	.	
JUL	7.230	6.870	.	.	
AUG	4.800	4.800	.	.	
SEP	.970 <T	5.300	.	.	
OCT	3.600	1.100	.	.	
NOV	.460 <T	1.800	.	.	
DEC	2.200 <T	3.600 <T	.	.	
COPPER (UG/L)			DET'N LIMIT = .100		GUIDELINE = 1000 (A3)
JAN	28.000	2.200	100.000	13.000	
FEB	23.000	1.900	.	.	
MAR	27.000	2.100	.	.	
APR	27.000	1.500	.	.	
MAY	20.000	1.400	.	.	
JUN	27.000	2.300	.	.	
JUL	26.930	1.880	.	.	
AUG	34.000	2.200	.	.	
SEP	53.000	1.900	.	.	
OCT	24.000	1.900	.	.	
NOV	29.000	2.800	.	.	
DEC	11.000	1.900 <T	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
IRON (UG/L)			DET'N LIMIT = 4.000		GUIDELINE = 300. (A3)
JAN	23.000 <T	11.000 <T	280.000	180.000	
FEB	23.000 <T	BDL	.	.	
MAR	93.000	11.000 <T	.	.	
APR	41.000 <T	BDL	.	.	
MAY	BDL	BDL	.	.	
JUN	14.000 <T	5.800 <T	.	.	
JUL	8.380 <T	BDL	.	.	
AUG	BDL	5.200 <T	.	.	
SEP	94.000	BDL	.	.	
OCT	23.000 <T	12.000 <T	.	.	
NOV	47.000 <T	BDL	.	.	
DEC	12.000 <T	BDL	.	.	
MERCURY (UG/L)			DET'N LIMIT = 0.010		GUIDELINE = 1.000 (A1)
JAN	.060	.060	.	.040 <T	
FEB	BDL	BDL	.	.	
MAR	BDL	BDL	.	.	
APR	BDL	BDL	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	.110	.080	.	.	
AUG	.020 <T	.020 <T	.	.	
SEP	BDL	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
MANGANESE (UG/L)			DET'N LIMIT = .050		GUIDELINE = 50.0 (A3)
JAN	2.600	.370 <T	12.000	5.800	
FEB	2.000	.600	.	.	
MAR	3.900	.770	.	.	
APR	2.300	.610	.	.	
MAY	.920	.070 <T	.	.	
JUN	1.600	.420 <T	.	.	
JUL	2.240	.870	.	.	
AUG	1.500	.570	.	.	
SEP	7.700	.960	.	.	
OCT	2.000	.540	.	.	
NOV	4.800	.350 <T	.	.	
DEC	1.900	.400 <T	.	.	
MOLYBDENUM (UG/L)			DET'N LIMIT = 0.020		GUIDELINE = N/A
JAN	1.300	1.300	1.100	1.200	
FEB	1.500	1.500	.	.	
MAR	1.500	1.500	.	.	
APR	1.400	1.300	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
MAY	1.500	1.600	.	.	
JUN	1.700	1.500	.	.	
JUL	1.510	1.590	.	.	
AUG	1.300	1.400	.	.	
SEP	1.300	1.300	.	.	
OCT	1.200	1.200	.	.	
NOV	1.000	1.200	.	.	
DEC	1.200	1.200	.	.	
NICKEL (UG/L)			DET'N LIMIT = 0.100		GUIDELINE = 50. (F3)
JAN	1.400 <T	1.500 <T	3.900	1.200 <T	
FEB	2.000 <T	1.800 <T	.	.	
MAR	1.100 <T	.620 <T	.	.	
APR	1.300 <T	1.100 <T	.	.	
MAY	1.900 <T	2.400	.	.	
JUN	1.300 <T	1.400 <T	.	.	
JUL	2.200	2.460	.	.	
AUG	1.100 <T	.930 <T	.	.	
SEP	.950 <T	.940 <T	.	.	
OCT	1.200 <T	1.100 <T	.	.	
NOV	.520 <T	.390 <T	.	.	
DEC	.260 <T	BDL	.	.	
LEAD (UG/L)			DET'N LIMIT = 0.050		GUIDELINE = 50. (A1)
JAN	.380	.260	18.000	.630	
FEB	.820	.490	.	.	
MAR	.910	.400	.	.	
APR	.680	.250	.	.	
MAY	.190 <T	.340	.	.	
JUN	.310	.270	.	.	
JUL	.380	.340	.	.	
AUG	.500	.690	.	.	
SEP	.940	.230	.	.	
OCT	.130 <T	.120 <T	.	.	
NOV	.480	.230	.	.	
DEC	.190 <T	.210 <T	.	.	
ANTIMONY (UG/L)			DET'N LIMIT = .050		GUIDELINE = 146. (D4)
JAN	.540	.530	.790	.600	
FEB	.820	1.000	.	.	
MAR	.820	.820	.	.	
APR	.770	.800	.	.	
MAY	1.000	1.100	.	.	
JUN	.800	1.200	.	.	
JUL	.900	1.090	.	.	
AUG	.750	.890	.	.	
SEP	.640	.630	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
OCT	.630	.610	.	.
NOV	.690	.650	.	.
DEC	.450 <T	.580	.	.
SELENIUM (UG/L)			DET'N LIMIT = 0.200	GUIDELINE = 10. (A1)
JAN	.670 <T	2.400 <T	1.100 <T	1.100 <T
FEB	4.400 <T	3.700 <T	.	.
MAR	BDL	3.600 <T	.	.
APR	1.800 <T	3.600 <T	.	.
MAY	BDL	4.300 <T	.	.
JUN	2.700 <T	4.700 <T	.	.
JUL	BDL	1.910 <T	.	.
AUG	BDL	2.500 <T	.	.
SEP	BDL	2.000 <T	.	.
OCT	BDL	1.200 <T	.	.
NOV	1.500 <T	1.600 <T	.	.
DEC	BDL	BDL	.	.
STRONTIUM (UG/L)			DET'N LIMIT = .050	GUIDELINE = N/A
JAN	180.000	180.000	190.000	180.000
FEB	160.000	180.000	.	.
MAR	180.000	180.000	.	.
APR	180.000	190.000	.	.
MAY	170.000	180.000	.	.
JUN	160.000	170.000	.	.
JUL	194.380	193.560	.	.
AUG	180.000	180.000	.	.
SEP	170.000	180.000	.	.
OCT	180.000	180.000	.	.
NOV	180.000	180.000	.	.
DEC	190.000	190.000	.	.
TITANIUM (UG/L)			DET'N LIMIT = .050	GUIDELINE = N/A
JAN	3.100	2.900	3.000	2.400
FEB	8.900	7.400	.	.
MAR	9.500	6.500	.	.
APR	7.500	7.000	.	.
MAY	2.700	3.600	.	.
JUN	5.500	5.700	.	.
JUL	7.360	6.240	.	.
AUG	6.400	6.900	.	.
SEP	7.600	4.300	.	.
OCT	4.600	3.900	.	.
NOV	5.000	4.200	.	.
DEC	4.600 <T	4.000 <T	.	.
THALLIUM (UG/L)			DET'N LIMIT = .010	GUIDELINE = 13. (D4)

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
JAN	BDL	BDL	BDL	BDL
FEB	BDL	BDL	.	.
MAR	BDL	BDL	.	.
APR	BDL	.030 <T	.	.
MAY	.060 <T	.050 <T	.	.
JUN	.040 <T	.110 <T	.	.
JUL	BDL	BDL	.	.
AUG	.050 <T	BDL	.	.
SEP	.040 <T	.040 <T	.	.
OCT	BDL	BDL	.	.
NOV	.030 <T	.020 <T	.	.
DEC	BDL	BDL	.	.
URANIUM (UG/L)			DET'N LIMIT = .020	GUIDELINE = 20. (A2)
JAN	.370	.410	.370	.290
FEB	.620	.680	.	.
MAR	.510	.480	.	.
APR	.500	.440	.	.
MAY	.480	.600	.	.
JUN	.470	.590	.	.
JUL	.620	.730	.	.
AUG	.530	.630	.	.
SEP	.310	.330	.	.
OCT	.280	.360	.	.
NOV	.330	.350	.	.
DEC	.340 <T	.380 <T	.	.
VANADIUM (UG/L)			DET'N LIMIT = .050	GUIDELINE = N/A
JAN	.220 <T	.310 <T	.250 <T	.260 <T
FEB	.420 <T	.490 <T	.	.
MAR	.430 <T	.380 <T	.	.
APR	.280 <T	.370 <T	.	.
MAY	.330 <T	.470 <T	.	.
JUN	.350 <T	.450 <T	.	.
JUL	.310 <T	.480 <T	.	.
AUG	.350 <T	.480 <T	.	.
SEP	.360 <T	.410 <T	.	.
OCT	.300 <T	.360 <T	.	.
NOV	.250 <T	.350 <T	.	.
DEC	.290 <T	.450 <T	.	.
ZINC (UG/L)			DET'N LIMIT = .001	GUIDELINE = 5000. (A3)
JAN	5.300	1.700	55.000	3.400
FEB	6.200	2.100	.	.
MAR	7.100	2.600	.	.
APR	5.700	2.100	.	.
MAY	2.500	2.200	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
JUN	3.400	3.000	.	.
JUL	2.900	2.440	.	.
AUG	2.500	2.300	.	.
SEP	4.300	1.300	.	.
OCT	2.600	1.600	.	.
NOV	2.700	3.600	.	.
DEC	3.800	1.800 <T	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
PESTICIDES & PCB					
ALPHA BHC (NG/L)			DET'N LIMIT = 1.000		GUIDELINE = 700 (G)
JAN	BDL	BDL	.	BDL	
FEB	2.000 <T	1.000 <T	.	.	
MAR	2.000 <T	2.000 <T	.	.	
APR	1.000 <T	2.000 <T	.	.	
MAY	1.000 <T	BDL	.	.	
JUN	ILA	BDL	.	.	
JUL	1.000 <T	2.000 <T	.	.	
AUG	2.000 <T	2.000 <T	.	.	
SEP	1.000 <T	2.000 <T	.	.	
OCT	1.000 <T	1.000 <T	.	.	
NOV	1.000 <T	2.000 <T	.	.	
DEC	BDL	BDL	.	.	
ATRAZINE (NG/L)			DET'N LIMIT = 50.00		GUIDELINE = 60000 (B3)
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	.	
MAR	BDL	BDL	.	.	
APR	BDL	BDL	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	BDL	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	190.000 <T	90.000 <T	.	.	
DEC	BDL	BDL	.	.	
D-ETHYL ATRAZINE (NG/L)			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	.	
MAR	BDL	BDL	.	.	
APR	BDL	BDL	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	BDL	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	230.000 <T	BDL	.	.	
DEC	BDL	BDL	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
PHENOLICS (UG/L)	PHENOLICS		DET'N LIMIT = 0.2		GUIDELINE = 2.00 (A3)
JAN	1.600	1.800	.	.	
FEB	1.000	1.200	.	.	
MAR	1.600	1.200	.	.	
APR	1.200	1.000	.	.	
MAY	1.200	.800 <T	.	.	
JUN	.800 <T	1.000 <T	.	.	
JUL	1.200	.400 <T	.	.	
AUG	1.600	1.000	.	.	
SEP	2.000	2.600	.	.	
OCT	1.000 <T	1.400	.	.	
NOV	.400 <T	.800 <T	.	.	
DEC	.400 <T	.400 <T	.		

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
VOLATILES					
BENZENE (UG/L)			DET'N LIMIT = .050		GUIDELINE = 5.0 (B1)
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	.	
MAR	BDL	BDL	.	.	
APR	BDL	BDL	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	.050 <T	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
TOLUENE (UG/L)			DET'N LIMIT = .050		GUIDELINE = 24.0 (B4)
JAN	.050 <T	BDL	.	BDL	
FEB	BDL	.100 <T	.	.	
MAR	.050 <T	.200 <T	.	.	
APR	.100 <T	.150 <T	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	.100 <T	.	.	
AUG	BDL	BDL	.	.	
SEP	BDL	BDL	.	.	
OCT	BDL	.050 <T	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
ETHYLBENZENE (UG/L)			DET'N LIMIT = .050		GUIDELINE = 2.4 (B4)
JAN	.050 <T	.050 <T	.	BDL	
FEB	BDL	BDL	.	.	
MAR	BDL	.050 <T	.	.	
APR	.050 <T	.150 <T	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	.050 <T	.	.	
JUL	BDL	.050 <T	.	.	
AUG	BDL	BDL	.	.	
SEP	.050 <T	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	.050 <T	.	.	
M-XYLENE (UG/L)			DET'N LIMIT = .100		GUIDELINE = 300 (B4)
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	.	
MAR	BDL	BDL	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 2		
			STANDING	FREE FLOW	
APR	BDL	.100 <T	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	BDL	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
O-XYLENE (UG/L)		DET'N LIMIT = .050			GUIDELINE = 300 (B4)
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	.	
MAR	BDL	BDL	.	.	
APR	BDL	BDL	.	.	
MAY	BDL	BDL	.	.	
JUN	BDL	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.	
SEP	.050 <T	BDL	.	.	
OCT	BDL	BDL	.	.	
NOV	BDL	BDL	.	.	
DEC	BDL	BDL	.	.	
STYRENE (UG/L)		DET'N LIMIT = .050			GUIDELINE = 46.5 (D2)
JAN	.150 <T	.050 <T	.	BDL	
FEB	.050 <T	.150 <T	.	.	
MAR	.050 <T	.250 <T	.	.	
APR	.450 <T	.450 <T	.	.	
MAY	.100 <T	.100 <T	.	.	
JUN	.100 <T	.200 <T	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	.050 <T	.	.	
SEP	.100 <T	.100 <T	.	.	
OCT	BDL	.100 <T	.	.	
NOV	BDL	.250 <T	.	.	
DEC	BDL	.150 <T	.	.	
CHLOROFORM (UG/L)		DET'N LIMIT = .100			GUIDELINE = 350 (A1+)
JAN	BDL	5.800	.	5.200	
FEB	BDL	4.900	.	.	
MAR	BDL	7.700	.	.	
APR	BDL	9.500	.	.	
MAY	BDL	6.900	.	.	
JUN	BDL	5.600	.	.	
JUL	BDL	14.600	.	.	
AUG	BDL	9.400	.		

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
SEP	.200 <T	9.600	.	.
OCT	BDL	6.700	.	.
NOV	BDL	6.400	.	.
DEC	BDL	6.400	.	.
111, TRICHLOROETHANE (UG/L)			DET'N LIMIT = .020	GUIDELINE = 200 (D1)
JAN	BDL	BDL	.	.100 <T
FEB	BDL	BDL	.	.
MAR	.040 <T	.060 <T	.	.
APR	.100 <T	BDL	.	.
MAY	BDL	BDL	.	.
JUN	BDL	BDL	.	.
JUL	.020 <T	BDL	.	.
AUG	BDL	BDL	.	.
SEP	.040 <T	.060 <T	.	.
OCT	BDL	BDL	.	.
NOV	BDL	BDL	.	.
DEC	BDL	BDL	.	.
DICHLOROBROMOMETHANE (UG/L)			DET'N LIMIT = .050	GUIDELINE = 350 (A1+)
JAN	BDL	6.550	.	6.150
FEB	BDL	6.100	.	.
MAR	BDL	6.400	.	.
APR	BDL	7.850	.	.
MAY	BDL	6.400	.	.
JUN	BDL	6.350	.	.
JUL	BDL	9.250	.	.
AUG	BDL	8.200	.	.
SEP	.100 <T	7.800	.	.
OCT	BDL	6.400	.	.
NOV	BDL	5.900	.	.
DEC	BDL	6.350	.	.
CHLORODIBROMOMETHANE (UG/L)			DET'N LIMIT = .100	GUIDELINE = 350 (A1+)
JAN	BDL	4.100	.	4.300
FEB	BDL	4.000	.	.
MAR	BDL	2.800	.	.
APR	BDL	4.000	.	.
MAY	BDL	4.100	.	.
JUN	BDL	4.300	.	.
JUL	BDL	4.800	.	.
AUG	BDL	4.400	.	.
SEP	BDL	5.000	.	.
OCT	BDL	3.700	.	.
NOV	BDL	3.700	.	.
DEC	BDL	4.700	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
T-CHLOROETHYLENE (UG/L)			DET'N LIMIT = .050	GUIDELINE = 10.0 (C2)
JAN	BDL	BDL	.	BDL
FEB	BDL	BDL	.	.
MAR	BDL	BDL	.	.
APR	BDL	BDL	.	.
MAY	BDL	.050 <T	.	.
JUN	BDL	BDL	.	.
JUL	BDL	.050 <T	.	.
AUG	BDL	BDL	.	.
SEP	BDL	BDL	.	.
OCT	BDL	BDL	.	.
NOV	BDL	BDL	.	.
DEC	BDL	BDL	.	.
BROMOFORM (UG/L)			DET'N LIMIT = .200	GUIDELINE = 350 (A1+)
JAN	BDL	.600 <T	.	.600 <T
FEB	BDL	.600 <T	.	.
MAR	BDL	.600 <T	.	.
APR	BDL	.800 <T	.	.
MAY	BDL	.800 <T	.	.
JUN	BDL	.600 <T	.	.
JUL	BDL	.600 <T	.	.
AUG	BDL	.600 <T	.	.
SEP	BDL	.800 <T	.	.
OCT	BDL	.800 <T	.	.
NOV	BDL	.600 <T	.	.
DEC	BDL	.800 <T	.	.
1,4 DICHLOROBENZENE (UG/L)			DET'N LIMIT = .100	GUIDELINE = 5.0 (B1)
JAN	BDL	BDL	.	BDL
FEB	BDL	BDL	.	.
MAR	BDL	BDL	.	.
APR	BDL	BDL	.	.
MAY	BDL	BDL	.	.
JUN	BDL	BDL	.	.
JUL	BDL	BDL	.	.
AUG	BDL	BDL	.	.
SEP	BDL	BDL	.	.
OCT	BDL	BDL	.	.
NOV	BDL	BDL	.	.
DEC	BDL	.200 <T	.	.
TOTL TRIHALOMETHANES (UG/L)			DET'N LIMIT = .500	GUIDELINE = 350 (A1)
JAN	BDL	17.050	.	16.250
FEB	BDL	15.600	.	.
MAR	BDL	17.500	.	.
APR	BDL	22.150	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM METRO TORONTO (R. C. HARRIS WTP) 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 2	
			STANDING	FREE FLOW
MAY	BDL	18.200	.	.
JUN	BDL	16.850	.	.
JUL	BDL	29.500	.	.
AUG	BDL	22.600	.	.
SEP	BDL	23.200	.	.
OCT	BDL	17.600	.	.
NOV	BDL	16.600	.	.
DEC	BDL	18.250	.	.

TRACE LEVELS OF TOLUENE ARE LABORATORY ARTIFACTS DERIVED FROM THE ANALYTICAL METHODOLOGY.

TRACE LEVELS OF STYRENE ARE CONSIDERED TO BE LABORATORY ARTIFACTS RESULTING FROM THE LABORATORY SHIPPING CONTAINERS.

Table 6

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
BACTERIOLOGICAL			
FECAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	0 (A1)
STANDARD PLATE COUNT MEMBRANE FILTRATION	CT/ML	0	500/ML(A1)
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100mL(A1)
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A
CHLOROAROMATICS			
HEXACHLOROBUTADIENE	NG/L	1.000	450. (D4)
1,2,3-TRICHLOROBENZENE	NG/L	5.000	10000 (I)
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)
1,2,3,5-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)
1,2,4-TRICHLOROBENZENE	NG/L	5.000	10000 (I)
1,2,4,5-TETRACHLOROBENZENE	NG/L	1.000	38000 (D4)
1,3,5-TRICHLOROBENZENE	NG/L	5.000	10000 (D4)
HEXACHLOROBENZENE	NG/L	1.0	10. (C1)
HEXACHLOROETHANE	NG/L	1.000	1900. (D4)
OCTACHLOROSTYRENE	NG/L	1.000	N/A
PENTACHLOROBENZENE	NG/L	1.000	74000 (D4)
2,3,6-TRICHLOROTOLUENE	NG/L	5.000	N/A
2,4,5-TRICHLOROTOLUENE	NG/L	5.000	N/A
2,6,A-TRICHLOROTOLUENE	NG/L	5.000	N/A
CHLOROPHENOLS			
2,3,4-TRICHLOROPHENOL	NG/L	50.	N/A
2,3,4,5-TETRACHLOROPHENOL	NG/L	50.	N/A
2,3,5,6-TETRACHLOROPHENOL	NG/L	50.	N/A
2,4,5-TRICHLOROPHENOL	NG/L	50.	2600000 (D4)
2,4,6-TRICHLOROPHENOL	NG/L	50.	2000. (B4)
PENTACHLOROPHENOL	NG/L	50.	30000. (B4)
CHEMISTRY (FLD)			
FIELD COMBINED CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD FREE CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD TOTAL CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD PH	DMSNLESS	N/A	6.5-8.5(A4)
FIELD TEMPERATURE	°C	N/A	<15 °C(A1)
FIELD TURBIDITY	FTU	N/A	1.0 (A1)
CHEMISTRY (LAB)			
ALKALINITY	MG/L	.200	30-500(A4)
CALCIUM	MG/L	.100	100. (F2)
CYANIDE	MG/L	.001	.20(A1)
CHLORIDE	MG/L	.200	250. (A3)
COLOUR	TCU	.5	5.0 (A3)
CONDUCTIVITY	UMHO/CM	1.	400. (F2)
FLUORIDE	MG/L	.01	2.4 (A1)
HARDNESS	MG/L	.50	80-100(A4)
MAGNESIUM	MG/L	.05	30. (F2)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
NITRITE	MG/L	.001	1.0 (A1)
TOTAL NITRATES	MG/L	.02	10. (A1)
NITROGEN TOTAL KJELDAHL	MG/L	.02	N/A
PH	DMSNLESS	N/A	6.5-8.5(A4)
PHOSPHORUS FIL REACT	MG/L	.0005	N/A
PHOSPHORUS TOTAL	MG/L	.002	.40(F2)
TOTAL SOLIDS	MG/L	1.	500. (A3)
TURBIDITY	FTU	.02	1.0 (A1)
METALS			
ALUMINUM	UG/L	.050	100. (A4)
ANTIMONY	UG/L	.050	10. (F3)
ARSENIC	UG/L	.050	50. (A1)
BARIUM	UG/L	.020	1000. (A1)
BORON	UG/L	.200	5000. (A1)
BERYLLIUM	UG/L	.010	0.20 (H)
CADMIUM	UG/L	.050	5.0 (A1)
COBALT	UG/L	.020	1000. (H)
CHROMIUM	UG/L	.100	50. (A1)
COPPER	UG/L	.100	1000. (A3)
IRON	UG/L	5.0	300. (A3)
MERCURY	UG/L	.01	1.0 (A1)
MANGANESE	UG/L	.050	50. (A3)
MOLYBDENUM	UG/L	.020	500. (H)
NICKEL	UG/L	.100	50. (F3)
LEAD	UG/L	.020	50. (A1)
SELENIUM	UG/L	.200	10. (A1)
SILVER	UG/L	.020	50. (A1)
STRONTIUM	UG/L	.100	2000. (H)
THALLIUM	UG/L	.010	13. (D4)
TITANIUM	UG/L	.100	N/A
URANIUM	UG/L	.020	20. (A2)
VANADIUM	UG/L	.020	100. (H)
ZINC	UG/L	.020	5000. (A3)
PHENOLICS			
PHENOLICS (UNFILTERED REACTIVE)	UG/L	.2	2.0 (A3)
PESTICIDES & PCB			
ALDRIN	NG/L	1.0	700. (A1)
AMETRINE	NG/L	50.	300000. (D3)
ATRAZINE	NG/L	50.	60000. (B3)
ALPHA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	700. (G)
BETA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	300. (G)
GAMMA HEXACHLOROCYCLOHEXANE(LINDANE)	NG/L	1.0	4000. (A1)
ALPHA CHLORDANE	NG/L	2.0	7000. (A1)
GAMMA CHLORDANE	NG/L	2.0	7000. (A1)
BLADEX	NG/L	100.	10000. (B3)
DIELDRIN	NG/L	2.0	700. (A1)
METHOXYCHLOR	NG/L	5.0	900000. (B1)
ENDOSULFAN 1 (THIODAN I)	NG/L	2.0	74000. (D4)
ENDOSULFAN 2 (THIODAN II)	NG/L	4.0	74000. (D4)
ENDRIN	NG/L	4.0	200. (A1)
ENDOSULFAN SULPHATE(THIODAN SULPHATE)	NG/L	4.0	N/A
HEPTACHLOR EPOXIDE	NG/L	1.0	3000. (A1)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE	
HEPTACHLOR	NG/L	1.0	3000.	(A1)
METOLACHLOR	NG/L	500.	50000.	(B3)
MIREX	NG/L	5.0	N/A	
OXYCHLORDANE	NG/L	2.0	N/A	
O,P-DDT	NG/L	5.0	30000.	(A1)
PCB	NG/L	20.0	3000.	(A2)
O,P-DDD	NG/L	5.0	N/A	
PPDDE	NG/L	1.0	30000.	(A1)
PPDDT	NG/L	5.0	30000.	(A1)
ATRATONE	NG/L	50.	N/A	
ALACHLOR	NG/L	500.	35000.	(D2)
PROMETONE	NG/L	50.	52500.	(D3)
PROPAZINE	NG/L	50.	16000.	(D2)
PROMETRYNE	NG/L	50.	1000.	(B3)
SENCOR (METRIBUZIN)	NG/L	100.	80000.	(B2)
SIMAZINE	NG/L	50.	10000.	(B3)
POLYAROMATIC HYDROCARBONS				
PHENANTHRENE	NG/L	10.0	N/A	
ANTHRACENE	NG/L	1.0	N/A	
FLUORANTHENE	NG/L	20.0	42000.	(D4)
PYRENE	NG/L	20.0	N/A	
BENZO(A)ANTHRACENE	NG/L	20.0	N/A	
CHRYSENE	NG/L	50.0	N/A	
DIMETHYL BENZO(A)ANTHRACENE	NG/L	5.0	N/A	
BENZO(E)PYRENE	NG/L	50.0	N/A	
BENZO(B)FLUORANTHENE	NG/L	10.0	N/A	
PERYLENE	NG/L	10.0	N/A	
BENZO(K)FLUORANTHENE	NG/L	1.0	N/A	
BENZO(A)PYRENE	NG/L	5.0	10.	(B1)
BENZO(G,H,I)PERYLENE	NG/L	20.0	N/A	
DIBENZO(A,H)ANTHRACENE	NG/L	10.0	N/A	
INDENO(1,2,3-C,D)PYRENE	NG/L	20.0	N/A	
BENZO(B)CHRYSENE	NG/L	2.0	N/A	
CORONENE	NG/L	10.0	N/A	
SPECIFIC PESTICIDES				
TOXAPHENE	NG/L	N/A	5000.	(A1)
2,4,5-TRICHLOROBUTYRIC ACID	NG/L	50.	200000.	(B4)
(2,4,5-T)				
2,4-DICHLOROBUTYRIC ACID (2,4-D)	NG/L	100.	100000.	(A1)
2,4-DICHLORORPHENOXYBUTYRIC ACID	NG/L	200.	18000.	(B3)
2,4-D PROPIONIC ACID	NG/L	100.	N/A	
DICAMBA	NG/L	100.	120000.	(B1)
PICLORAM	NG/L	100.	190000.	(B3)
SILVEX (2,4,5-TP)	NG/L	50.	10000.	(A1)
DIAZINON	NG/L	20.	20000.	(B1)
DICHLOROVOS	NG/L	20.	N/A	
DURSBAN	NG/L	20.	N/A	
ETHION	NG/L	20.	35000.	(G)
GUTHION(AZINPHOSMETHYL)	NG/L	N/A	20000.	(B1)
MALATHION	NG/L	20.	190000.	(B1)
MEVINPHOS	NG/L	20.	N/A	
METHYL PARATHION	NG/L	50.	7000.	(A1)
METHYLTRITHION	NG/L	20.	N/A	
PARATHION	NG/L	20.	50000.	(B1)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE	
PHORATE (THIMET)	NG/L	20.	2000.	(B3)
RELDAN	NG/L	20.	N/A	
RONNEL	NG/L	20.	N/A	
AMINOCARB	NG/L	N/A	N/A	
BENONYL	NG/L	N/A	N/A	
BUX (METALKAMATE)	NG/L	2000.	N/A	
CARBOFURAN	NG/L	2000.	90000.	(B1)
CICP (CHLORPROPHAM)	NG/L	2000.	350000.	(G)
DIALLATE	NG/L	2000.	30000.	(H)
EPTAM	NG/L	2000.	N/A	
IPC	NG/L	2000.	N/A	
PROPOXUR (BAYGON)	NG/L	2000.	90000.	(G)
SEVIN (CARBARYL)	NG/L	200.	90000.	(B1)
SUTAN (BUTYLATE)	NG/L	2000.	245000.	(D3)
VOLATILES				
BENZENE	UG/L	.050	5.0	(B1)
TOLUENE	UG/L	.050	24.0	(B4)
ETHYLBENZENE	UG/L	.050	2.4	(B4)
PARA-XYLENE	UG/L	.100	300.	(B4)
META-XYLENE	UG/L	.100	300.	(B4)
ORTHO-XYLENE	UG/L	.050	300.	(B4)
1,1-DICHLOROETHYLENE	UG/L	.100	7.0	(D1)
ETHLYENE DIBROMIDE	UG/L	.05	.05	G)
METHYLENE CHLORIDE	UG/L	.500	50.	(B1)
TRANS-1,2-DICHLOROETHYLENE	UG/L	.100	70.	(D5)
1,1-DICHLOROETHANE	UG/L	.100	N/A	
CHLOROFORM	UG/L	.100	350.	(A1+)
1,1,1-TRICHLOROETHANE	UG/L	.020	200.	(D1)
1,2-DICHLOROETHANE	UG/L	.050	5.0	(D1)
CARBON TETRACHLORIDE	UG/L	.200	5.0	(B1)
1,2-DICHLOROPROPANE	UG/L	.050	6.0	(D5)
TRICHLOROETHYLENE	UG/L	.100	50.	(B1)
DICHLOROBROMOMETHANE	UG/L	.050	350.	(A1+)
1,1,2-TRICHLOROETHANE	UG/L	.050	.60	(D4)
CHLORODIBROMOMETHANE	UG/L	.100	350.	(A1+)
TETRACHLOROETHYLENE	UG/L	.050	10.0	(C2)
BROMOFORM	UG/L	.200	350.	(A1+)
1,1,2,2-TETRACHLOROETHANE	UG/L	.050	0.17	(D4)
CHLOROBENZENE	UG/L	.100	60.	(D5)
1,4-DICHLOROBENZENE	UG/L	.100	1.0	(B4)
1,3-DICHLOROBENZENE	UG/L	.100	130.	(G)
1,2-DICHLOROBENZENE	UG/L	.050	3.0	(B4)
TRIFLUOROCHLOROTOLUENE	UG/L	.100	N/A	
TOTAL TRIHALOMETHANES	UG/L	.500	350.	(A1)
STYRENE	UG/L	.05	140.	(D5)